

CONTROL DATA® 9756 DISK STORAGE UNIT DESIGNED FOR ORIGINAL EQUIPMENT MANUFACTURERS

CONTROL DATA
CORPORATION



The CONTROL DATA 9756 Disk Storage Unit is a 100-million byte, random-access peripheral storage device. It uses the CDC® 879 Disk Pack, or equivalent IBM 3336, for the recording and reading of information. Each disk pack is removable and contains ten oxide-coated recording disks. Data can be written on 19 of the 20 recording surfaces. Positioning information is permanently recorded on the remaining recording surface.

The basic disk storage unit consists of a cabinet containing a power supply, logic chassis, and deck. The deck holds the drive-spindle assembly and the voice-coil positioning mechanism. Head positioning is performed by a closed-loop, proportional servo system which drives a voice-coil linear actuator.

The disk storage unit operates as a single-channel device (to controller) with rotational position sensing and seek overlap features to maximize throughput. The input/output lines and functions are identical to those of the IBM 3330 Disk Storage Unit. Diagnostic capability has been incorporated into the disk storage unit and most

maintenance and troubleshooting can be performed merely by using controller microdiagnostic routines.

SPECIFICATIONS

RECORDING FORMAT AND CAPACITY

Capacity, Formatted (8 bits per byte):

13,030 bytes per track*

247,570 bytes per cylinder*

100,000,000 bytes per spindle*

*Excluding home address and record zero

Recording Density:

4040 bits per inch (bpi), inner tracks

192 tracks per inch (tpi)

Tracks per Surface:

404 data tracks plus 7 spare tracks

PROCESSING SPEED

Data-transfer rate (3600 rpm spindle speed):

806,400 bytes per second

Bit-transfer rate (3600 rpm spindle speed):

6,451 megabits per second

POSITIONING TIME

411 Tracks: 55 milliseconds

One Track: 10 milliseconds

Average: 30 milliseconds

DISK PACK

Type: CDC 879 or equivalent (IBM 3336)

Number of Disks: 12 (10 recording, 2 protective)

Disk Diameter: 14 inches

Coating: Magnetic oxide

Pack Weight: 20 pounds (approximately)

RECORDING HEADS

Type: Self-loading, single-gap, no-erase

Number: 20 (19 read/write and one position-servoing)

OPERATOR CONTROLS

Switch Indicators:

Start/Stop

Write Disable (prevents writing)

Select Lock (fault indication and clear)

Indicators:

Physical Unit Number (unit ready)

Maintenance (indicates off-line)

Logic Plug (logical unit number)

INTERFACE

Control Lines: Daisy-chained from unit to unit

Single-ended transmission over twisted-pair cables with 19 ohms termination

IBM 3330 type commands and transmission levels

Data Lines: Star-connected to groups of two units and daisy-chained between the two units

Balanced-line transmission over twin coaxial cable (200 ohms line-to-line)

IBM 3330-type signals and transmission levels

POWER REQUIREMENTS

AC Power: 208 ($\pm 10\%$) VAC, 60 ($\pm 1\%$) Hz, single phase
220 ($\pm 10\%$) VAC, 50 ($\pm 1\%$) Hz, single phase

DC Power: +24 VDC at 42 milliamps nominal (for AC power sequencing)

ENVIRONMENTAL RANGE

Operating Temperature: 60 to 90°F

Operating Humidity: 20 to 80 percent RH

Storage Temperature: -30 to +150°F

Storage Humidity: 5 to 95 percent RH

PHYSICAL

Height: 39 inches

Width: 22 inches

Depth: 43 inches

Weight: 700 pounds

Specifications are subject to change without notice.

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